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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/666,103

09/18/2003

Moon J. Kim

CHA920030023US1

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08/22/2006

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EXAMINER

SING, SIMON P

ART UNIT

PAPER NUMBER

2614

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/666,103	KIM ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Simon Sing	2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-13 and 15-21 is/are rejected.
- 7) ☒ Claim(s) 3 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1,2, 4-6, 11-13 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haber et al. US 6,185,536 in view of Gong US 6,577,997.

1.1 Regarding claims 1, 11 and 19, Haber discloses a system for using user-specific voice data to authorizing a telephone call, comprising:

a setup system (Communication Unit CU, or Control Facility CF) for capturing and storing an authentic user voice sample (Speech Characteristic Model or SCM) (column 2, lines 31-43; column 3, lines 36-44; column 4, lines 20-30);

a comparison system (CU or CF) that compares the user SCM with an inputted voice sample and generating an comparing result (column 7, lines 57-67; column 8, lines 1-2);

a control system (processor in CU of CF) for controlling access to a telephone device, wherein the control system:

analyzes the comparison result for an initial inputted voice sample received when the telephone call is initiated (column 3, lines 1-10; column 8, lines 3-10); and

periodically analyze comparison results for ongoing inputted voice samples received during the telephone call (column 9, lines 63-67; column 10, lines 1-7. Note: "If an authorized user..." in column 10, line 5, there is a typo and it should be changed to "If an *un*authorized user...").

Haber teaches granting access to a caller if a voice sample from a caller matches, correlates or is comparable with a user specific (pre-stored SCM) (column 1-10), but fails to explicitly teach that using a probability score to determine a match.

However, Gong teaches matching an acoustic model to input speech and generating probability score for the match to the model (column 1, lines 15-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Haber's reference with the teaching of Gong so that a match would have been determined based on a probability score, because certain criteria there must be used for determining a match, and such a modification would have clarified the matching criteria of Haber, and using a probability score would have been a design choice.

1.2 Regarding claims 2, 4, 12 and 13, it is inherent that there must be a threshold for determining a match, and Haber teaches terminating the call if a voice input does not

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match to voice samples pre-stored in a memory (column 3, lines 1-10; column 9, line 63 to column 10, line 7).

1.3 Regarding claims 5 and 6, Haber teaches telephones 12, 26, 28, 42, 52 and 54 in figures 1 and 2. It is inherent that a telephone is usable in a conference call.

1.4 Regarding claim 20, Haber teaches wireless phone 12 and 42 in figures 1 and 2.

1.5 Regarding claim 21, Haber teaches periodically or continually collecting voice sample for comparison (column 9, lines 63-67; column 10, lines 1-7).

2. Claims 7-10 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haber et al. US 6,185,536 in view of Sorensen et al. US 6,810,116.

2.1 Regarding claims 7 and 15, Haber discloses a system for using user-specific voice data to authorizing a telephone call by one of the portable telephones 12 and 42 in figures 1 and 2, comprising:

a setup system at centralized Control Facility (CF) 20 for capturing and storing voice sample (speech characteristic model or SCM) of authentic users (column 2, lines 31-41; column 3, lines 36-44; column 4, lines 24-30);

a comparison system (CF) that compares users' SCM with an inputted voice samples and generating an comparing results for multiple users 12 (figure 1) and 42 (figure 2) (column 9, lines 15-38, 57-67; column 6, lines 5-7; column 10, lines 1-7);

a control system (CF) for controlling access to the telephone call, wherein the control system:

analyzes the comparison result for an initial inputted voice sample received when the telephone call is initiated (column 3, lines 1-10; column 9, lines 20-26); and

periodically analyze comparison results for ongoing inputted voice samples received during the telephone call (column 9, lines 63-67; column 10, lines 1-7. Note: "If an authorized user..." in column 10, line 5 should be "If an unauthorized user...").

Haber fails to specifically teach that the telephone call is a conference call.

However, since Haber's CF controls portable telephones' access to the PSTN 24, and it is obvious that the telephone call may be a conference call.

In addition, Sorensen teaches setting up a conference call using voice verification to authorize each participant (column 8, lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Haber's reference with the teaching of Sorensen so that a telephone call would have been a conference call, because a telephone conference call was well known in the art, and such a modification would

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have enabled a user of telephone 12, 26, 28, 42, 52 or 54 to participate in a conference call.

2.2 Regarding claims 8-10 and 16-18, Haber teaches terminating the telephone call if voice input does not matched pre-stored voice samples (column 3, lines 1-10; column 9, lines 23-31, 63-66; column 10, lines 1-7).

### ***Allowable Subject Matter***

3. Claims 3 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Haber teaches periodically taking samples from a caller during a call for comparison, but fails to teach comparing an averaged probability score to a threshold for determining whether the caller is an authorized one.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1,2, 4-6, 11-13 and 19-21 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's arguments filed on 06/14/2006 regarding to claims 7-10 and 15-18, have been fully considered but they are not persuasive.

Applicants argue that Haber fails to teach a central location for authenticating a caller. However, as state above, Haber teaches centralized location i.e. control facility or CF 20, which stores' users speech characteristics model (SCM) in a table (column 6,lines 5-7), and the when a caller's voice SCM is forwarded to the CF 20 by a communication unit (CU), the CF 20 compares the incoming SCM with authorized SCM stored in the SCM table to determine whether the caller is an authorized user (column 9, lines 15-38). Haber thus teaches a central location for verifying a caller as claimed.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- |    |                |               |
|----|----------------|---------------|
| a) | Goldhor et al. | US 5,231,670. |
| b) | Naik et al.    | US 5,548,647. |
| c) | Fisher et al.  | US 6,061,653. |
| d) | Kanevsky et al | US 6,219,407. |
| f) | Kuhn et al.    | US 6,697,778. |

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



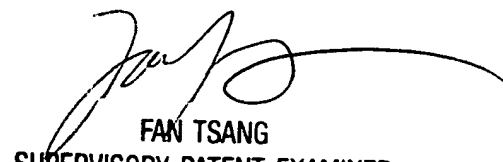
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Simon Sing whose telephone number is 571-272-7545. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at 571-272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.



S. Sing

08/09/2006



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SUPERVISORY PATENT EXAMINER  
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